

CONTOUR INTERVAL 20 FEET
DOTTED LINES REPRESENT 10-FOOT CONTOURS
NATIONAL GEODETIC VERTICAL DATUM OF 1929

**PROVISIONAL GEOLOGIC MAP
OF THE GUNNISON QUADRANGLE
SANPETE COUNTY, UTAH**

by
Stephen R. Mattox

1992



REDMOND CANYON
3662 IV SW

MAYFIELD
3662 IV SW

Base map from U.S. Geological Survey,
Gunnison Quadrangle, 1966.

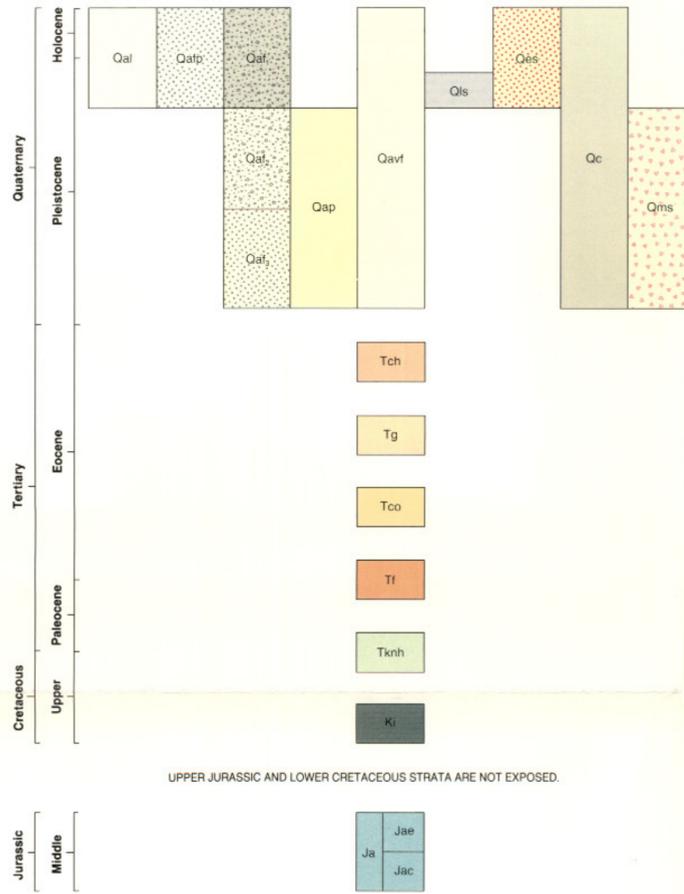
Dr. Malcolm Weiss, Advisor
Patricia H. Speranza, Cartographer

PERIOD	EPOCH/AGE	FORMATION	SYMBOL	THICKNESS feet (meters)	LITHOLOGY
QUATERNARY	PLEISTOCENE/HOLOCENE	Surficial deposits		0-300 (0-90)	
		Crazy Hollow Formation	Tch	0-300 (0-90)	
TERTIARY	EOCENE	Green River Formation	Tg	460-700 (140-210)	
		Colton Formation	Tco	200-540 (60-165)	
	PALEOCENE	Flagstaff Formation	Tf	340-650 (100-200)	
		North Horn Formation	Tknh	0-80 (0-25)	
CRETACEOUS	CENOMANIAN/TURONIAN EARLY CAMPANIAN	Indianola Group	Ki	8760 (2670)	

NATURE OF CONTACT IS UNKNOWN

JURASSIC	CALLOVIAN	Arapien Shale	Unit E	Jae	1200 (365)	LITHOLOGY
			Unit C	Jac	1700 (518)	

CORRELATION OF MAP UNITS



DESCRIPTION OF MAP UNITS

- Qal** Alluvium — Light-brown, well-sorted mud, silt, and fine sand interbedded with fining-upward, poorly sorted sand and gravel.
- Qaltp** Modern flood plain deposits — Interbedded, well-sorted, fine to medium sand and poorly sorted, structureless, sand and cobbles along the San Pitch River, mud and silt along the Sevier River.
- Qalf** Young alluvial-fan deposits — Poorly sorted and stratified mud, silt, sand, cobbles, and boulders in a fan of distinct morphology at the mouth of Mellor Canyon.
- Qaf** Old alluvial-fan deposits — Coalesced fans of subdued morphology along the west front of the Gunnison Plateau containing mud to boulder-sized clasts.
- Qaf₁** Oldest alluvial-fan deposits — Mud to boulder-sized clasts in fans isolated by normal faults up to 120 feet (36.5 m) higher than Qaf₁ and Qaf₂.
- Qap** Alluvial cover on pediments — Locally derived, weakly stratified, poorly sorted cobbles and boulders supported by a matrix of mud, silt, and sand overlying pediment erosional surfaces.
- Qavf** Valley-fill deposits — Weakly stratified, moderately sorted, pebbles and cobbles supported by a matrix of mud, silt, and sand overlying a structureless, mud-rich layer.
- Qls** Lake Bonneville sediments — Light-brown mud, silt, and fine sand, very thinly bedded, laminated, structureless, or rare festoon cross-stratification.
- Qes** Eolian sand — Yellowish-brown, unconsolidated, structureless, well-sorted, fine sand that mantles hills east of Fayette.
- Qc** Colluvium — Mud, silt, sand, cobbles, and boulders transported by gravity to the base of steep slopes and cliffs.
- Qms** Older mass-movement deposit — Debris flows consisting of material from the Colton and Green River Formations, appearing as a hummocky and dissected mass.
- Tch** Crazy Hollow Formation — Grayish-orange or white pebbly conglomerate and cross-bedded, salt-and-pepper sandstone that fines upward to moderate-red mudstones.
- Tg** Green River Formation — Slope-forming, pale-olive to light-greenish-gray, calcareous mudstones overlain by medium-bedded, freshwater dolomitic limestones with rare tuff and stromatolitic layers.
- Tco** Colton Formation — Variegated mudstone, thin, pale-green limestone, and yellowish-gray micaceous sandstone in Antelope Valley and Fayette Wash.
- Tf** Flagstaff Limestone — Grayish-orange and medium-light-gray, dolomitic limestone with less numerous oncolithic and fossil-rich beds.
- Tknh** North Horn Formation — Slope-forming, reddish mudstones just to the east of the Escarpment fault.
- Ki** Indianola Group, undifferentiated — Grayish, clast-supported conglomerate, grayish-orange sandstone, and pebbly sandstone, often with white to light-gray bleached zone at the top. Upper surface is a regional unconformity.
- Ja** Arapien Shale, undifferentiated — (shown only on the cross section) Pale-red to dark-reddish-brown, calcareous mudstones, yellowish-gray, laminated siltstones, and grayish-orange pink, very fine-grained, laminated sandstone.
- Jac** Unit C of the Arapien Shale (of Hardy, 1952) — Yellowish-gray, calcareous siltstone and grayish-orange-pink, calcareous sandstone with less abundant olive-gray and pale-brown siltstone and shale beds and rare blotches of pale-red, calcareous mudstone.
- Jae** Unit E of the Arapien Shale (of Hardy, 1952) — Massive, pale-red to dark-reddish-brown, calcareous mudstone.

MAP SYMBOLS

- CONTACT - Dashed where location inferred
- HIGH-ANGLE NORMAL FAULT - Dashed where location inferred, dotted where covered; bar and ball on downthrown side
- ANTICLINE
- SYNCLINE - Showing plunge of axis
- STRUCTURAL CONTOURS - 400 foot contour interval; datum is base of Green River Formation
- LINEAMENTS
- STRIKE AND DIP - Of bedding
- PROSPECT

